

SEQUENCE LISTING

<110> The Government of the United States of America, represented by the
Secretary, Department of Health and Human Services

<120> T20/DP178 AND T21/DP107 ARE ACTIVATORS
OF HUMAN PHAGOCYTE
FORMYL PEPTIDE RECEPTORS

<130> NIH171.001C1

<150> PCT/US00/12371

<151> 2000-05-05

<150> 60/132,686

<151> 1999-05-05

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Leu Trp Asn Trp Phe

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Ser Leu Trp Asn Trp Phe

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Asp Lys Trp Ala Ser Leu Trp Asn Trp Phe

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Leu Asp Lys Trp Ala Ser Leu Trp Asn Trp Phe

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His Ser Leu Ile Glu Glu Ser Gln Asn Gln Gln Glu Lys Asn Glu Gln

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Gln Glu Leu Leu Glu Leu Asp Lys Trp Ala Ser Leu Trp Asn Trp Phe
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Glu Gln Glu Leu Leu Glu Leu Asp Lys Trp Ala Ser Leu Trp Asn Trp
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Phe

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Asn Glu Gln Glu Leu Leu Glu Leu Asp Lys Trp Ala Ser Leu Trp Asn
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Trp Phe

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Asn Trp Phe
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Trp Asn Trp Phe
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 Gln Glu Leu Leu Glu Leu Asp Lys Trp Ala Ser Leu Trp Asn Trp Phe
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 Asp Lys Trp Ala Ser Leu Trp Asn Trp Phe
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Lys Trp Ala Ser Leu Trp Asn Trp Phe

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Trp Ala Ser Leu Trp Asn Trp Phe

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Asn Gln Gln Glu Lys Asn Glu Gln Glu Leu Leu Glu Leu Asp Lys Trp

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Ala Ser Leu Trp Asn Trp Phe

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<400> 78

Gln Gln Glu Lys Asn Glu Gln Glu Leu Leu Glu Leu Asp Lys Trp Ala

1 5 10 15

Ser Leu Trp Asn Trp Phe

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TO20T-50E500T

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Trp Asn Trp Phe
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Asn Trp Phe

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FOOT-SEQUENCE

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Trp Phe

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<400> 89

Leu Asp Lys Trp Ala Ser Leu Trp Asn Trp Phe
1 5 10

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<400> 90

Asp Lys Trp Ala Ser Leu Trp Asn Trp Phe
1 5 10

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<210> 91
<211> 9
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<213> Artificial Sequence

<220>
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<400> 91
Lys Trp Ala Ser Leu Trp Asn Trp Phe
1 5

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<211> 8
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<400> 92
Trp Ala Ser Leu Trp Asn Trp Phe
1 5

<210> 93
<211> 7
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<400> 93
Ala Ser Leu Trp Asn Trp Phe
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<400> 94
Ser Leu Trp Asn Trp Phe
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<211> 5

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Leu Trp Asn Trp Phe
1 5

<210> 96

<211> 4

<212> PRT
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<400> 96
Trp Asn Trp Phe
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<210> 97

<211> 4

<212> PRT
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<220>
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<400> 97
Asn Asn Leu Leu
1

<210> 98

<211> 5

<212> PRT
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<400> 98
Asn Asn Leu Leu Arg
1 5

<210> 99

<211> 6

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Asn Asn Leu Leu Arg Ala
1 5

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Asn Asn Leu Leu Arg Ala Ile
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<210> 101
<211> 8
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Asn Asn Leu Leu Arg Ala Ile Glu Ala
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<211> 11

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<400> 104

Asn Asn Leu Leu Arg Ala Ile Glu Ala Gln Gln

1 5 10

<210> 105

<211> 12

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<400> 105

Asn Asn Leu Leu Arg Ala Ile Glu Ala Gln Gln His

1 5 10

<210> 106

<211> 13

<212> PRT

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<400> 106

Asn Asn Leu Leu Arg Ala Ile Glu Ala Gln Gln His Leu

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<211> 14

<212> PRT

<213> Artificial Sequence

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<223> Artificial Peptide

<400> 107

Asn Asn Leu Leu Arg Ala Ile Glu Ala Gln Gln His Leu Leu

1 5 10

TOGETHER "SOS" FOR

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<400> 108
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1 5 10 15

<210> 109
<211> 16
<212> PRT
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<220>
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<400> 109
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1 5 10 15

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<400> 110
Asn Asn Leu Leu Arg Ala Ile Glu Ala Gln Gln His Leu Leu Gln Leu
1 5 10 15
Thr

<210> 111
<211> 18
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<220>
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<400> 111
Asn Asn Leu Leu Arg Ala Ile Glu Ala Gln Gln His Leu Leu Gln Leu
1 5 10 15
Thr Val

<210> 112
 <211> 19
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<220>
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<400> 112
 Asn Asn Leu Leu Arg Ala Ile Glu Ala Gln Gln His Leu Leu Gln Leu

1 5 10 15
 Thr Val Trp

<210> 113
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<220>
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<400> 113
 Asn Asn Leu Leu Arg Ala Ile Glu Ala Gln Gln His Leu Leu Gln Leu

1 5 10 15
 Thr Val Trp Gly
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<210> 114
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<220>
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<400> 114
 Asn Asn Leu Leu Arg Ala Ile Glu Ala Gln Gln His Leu Leu Gln Leu

1 5 10 15
 Thr Val Trp Gly Ile
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<210> 115
 <211> 22
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<220>
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TOP SECRET

<400> 115

Asn Asn Leu Leu Arg Ala Ile Glu Ala Gln Gln His Leu Leu Gln Leu

1 5 10 15

Thr Val Trp Gly Ile Lys

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<210> 116

<211> 23

<212> PRT

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<400> 116

Asn Asn Leu Leu Arg Ala Ile Glu Ala Gln Gln His Leu Leu Gln Leu

1 5 10 15

Thr Val Trp Gly Ile Lys Gln

20

<210> 117

<211> 24

<212> PRT

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<400> 117

Asn Asn Leu Leu Arg Ala Ile Glu Ala Gln Gln His Leu Leu Gln Leu

1 5 10 15

Thr Val Trp Gly Ile Lys Gln Leu

20

<210> 118

<211> 24

<212> PRT

<213> Artificial Sequence

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<223> Artificial Peptide

<400> 118

Asn Asn Leu Leu Arg Ala Ile Glu Ala Gln Gln His Leu Leu Gln Leu

1 5 10 15

Thr Val Trp Gly Ile Lys Gln Leu

20

<210> 119

<211> 26

<212> PRT
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<220>
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<400> 119
Asn Asn Leu Leu Arg Ala Ile Glu Ala Gln Gln His Leu Leu Gln Leu
1 5 10 15
Thr Val Trp Gly Ile Lys Gln Leu Gln Ala
20 25

<210> 120
<211> 27
<212> PRT
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<220>
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<400> 120
Asn Asn Leu Leu Arg Ala Ile Glu Ala Gln Gln His Leu Leu Gln Leu
1 5 10 15
Thr Val Trp Gly Ile Lys Gln Leu Gln Ala Arg
20 25

<210> 121
<211> 28
<212> PRT
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<220>
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<400> 121
Asn Asn Leu Leu Arg Ala Ile Glu Ala Gln Gln His Leu Leu Gln Leu
1 5 10 15
Thr Val Trp Gly Ile Lys Gln Leu Gln Ala Arg Ile
20 25

<210> 122
<211> 29
<212> PRT
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<220>
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<400> 122
Asn Asn Leu Leu Arg Ala Ile Glu Ala Gln Gln His Leu Leu Gln Leu
1 5 10 15
Thr Val Trp Gly Ile Lys Gln Leu Gln Ala Arg Ile Leu

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25

<210> 123

<211> 30

<212> PRT

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<220>

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<400> 123

Asn Asn Leu Leu Arg Ala Ile Glu Ala Gln Gln His Leu Leu Gln Leu

1	5	10	15
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	Ile	Lys	Gln
			Leu
			Gln
			Ala
			Arg
			Ile
			Leu
			Ala

<210> 124

<211> 31

<212> PRT

<213> Artificial Sequence

<220>

<223> Artificial Peptide

<400> 124

Asn Asn Leu Leu Arg Ala Ile Glu Ala Gln Gln His Leu Leu Gln Leu

1	5	10	15
Thr	Val	Trp	Gly
	Ile	Lys	Gln
			Leu
			Gln
			Ala
			Arg
			Ile
			Leu
			Ala
			Val

<210> 125

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Artificial Peptide

<400> 125

Asn Asn Leu Leu Arg Ala Ile Glu Ala Gln Gln His Leu Leu Gln Leu

1	5	10	15
Thr	Val	Trp	Gly
	Ile	Lys	Gln
			Leu
			Gln
			Ala
			Arg
			Ile
			Leu
			Ala
			Val
			Glu

<210> 126

<211> 33

<212> PRT

<213> Artificial Sequence

<220>

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<400> 126

Asn Asn Leu Leu Arg Ala Ile Glu Ala Gln Gln His Leu Leu Gln Leu

1 5 10 15

Thr Val Trp Gly Ile Lys Gln Leu Gln Ala Arg Ile Leu Ala Val Glu

20 25 30

Arg

<210> 127

<211> 34

<212> PRT

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<220>

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<400> 127

Asn Asn Leu Leu Arg Ala Ile Glu Ala Gln Gln His Leu Leu Gln Leu

1 5 10 15

Thr Val Trp Gly Ile Lys Gln Leu Gln Ala Arg Ile Leu Ala Val Glu

20 25 30

Arg Tyr

<210> 128

<211> 35

<212> PRT

<213> Artificial Sequence

<220>

<223> Artificial Peptide

<400> 128

Asn Asn Leu Leu Arg Ala Ile Glu Ala Gln Gln His Leu Leu Gln Leu

1 5 10 15

Thr Val Trp Gly Ile Lys Gln Leu Gln Ala Arg Ile Leu Ala Val Glu

20 25 30

Arg Tyr Leu

35

<210> 129

<211> 36

<212> PRT

<213> Artificial Sequence

<220>

<223> Artificial Peptide

<400> 129

Asn Asn Leu Leu Arg Ala Ile Glu Ala Gln Gln His Leu Leu Gln Leu

1 5 10 15

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Thr Val Trp Gly Ile Lys Gln Leu Gln Ala Arg Ile Leu Ala Val Glu
 20 25 30
 Arg Tyr Leu Lys
 35

<210> 130
 <211> 37
 <212> PRT
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<220>
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<400> 130
 Asn Asn Leu Leu Arg Ala Ile Glu Ala Gln Gln His Leu Leu Gln Leu
 1 5 10 15
 Thr Val Trp Gly Ile Lys Gln Leu Gln Ala Arg Ile Leu Ala Val Glu
 20 25 30
 Arg Tyr Leu Lys Asp
 35

<210> 131
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 <212> PRT
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<220>
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<400> 131
 Leu Lys Asp Gln
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<210> 132
 <211> 4
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<220>
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<400> 132
 Leu Lys Asp Gln
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<210> 133
 <211> 6
 <212> PRT
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<220>

TOP SECRET

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<400> 133

Arg Tyr Leu Lys Asp Gln
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<210> 134

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Artificial Peptide

<400> 134

Glu Arg Tyr Leu Lys Asp Gln
1 5

<210> 135

<211> 8

<212> PRT

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<220>

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<400> 135

Val Glu Arg Tyr Leu Lys Asp Gln
1 5

<210> 136

<211> 9

<212> PRT

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<400> 136

Ala Val Glu Arg Tyr Leu Lys Asp Gln
1 5

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<211> 10

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<400> 137

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Leu Gln Ala Arg Ile Leu Ala Val Glu Arg Tyr Leu Lys Asp Gln
1 5 10 15

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<220>
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<400> 143
Gln Leu Gln Ala Arg Ile Leu Ala Val Glu Arg Tyr Leu Lys Asp Gln
1 5 10 15

<210> 144
<211> 17
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<220>
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<400> 144
Lys Gln Leu Gln Ala Arg Ile Leu Ala Val Glu Arg Tyr Leu Lys Asp
1 5 10 15
Gln

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<211> 18
<212> PRT
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<220>
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<400> 145
Ile Lys Gln Leu Gln Ala Arg Ile Leu Ala Val Glu Arg Tyr Leu Lys
1 5 10 15
Asp Gln

<210> 146
<211> 19
<212> PRT
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<220>
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<400> 146
Gly Ile Lys Gln Leu Gln Ala Arg Ile Leu Ala Val Glu Arg Tyr Leu
1 5 10 15
Lys Asp Gln

<210> 147
<211> 20
<212> PRT
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<220>
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<400> 147
Trp Gly Ile Lys Gln Leu Gln Ala Arg Ile Leu Ala Val Glu Arg Tyr
1 5 10 15
Leu Lys Asp Gln
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<210> 148
<211> 21
<212> PRT
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<220>
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<400> 148
Val Trp Gly Ile Lys Gln Leu Gln Ala Arg Ile Leu Ala Val Glu Arg
1 5 10 15
Tyr Leu Lys Asp Gln
20

<210> 149
<211> 22
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Peptide

<400> 149

Thr Val Trp Gly Ile Lys Gln Leu Gln Ala Arg Ile Leu Ala Val Glu

1 5 10 15

Arg Tyr Leu Lys Asp Gln

20

<210> 150

<211> 23

<212> PRT

<213> Artificial Sequence

<220>

<223> Artificial Peptide

<400> 150

Leu Thr Val Trp Gly Ile Lys Gln Leu Gln Ala Arg Ile Leu Ala Val

1 5 10 15

Glu Arg Tyr Leu Lys Asp Gln

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<210> 151

<211> 24

<212> PRT

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<400> 151

Gln Leu Thr Val Trp Gly Ile Lys Gln Leu Gln Ala Arg Ile Leu Ala

1 5 10 15

Val Glu Arg Tyr Leu Lys Asp Gln

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<211> 25

<212> PRT

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<400> 152

Leu Gln Leu Thr Val Trp Gly Ile Lys Gln Leu Gln Ala Arg Ile Leu

1 5 10 15

Ala Val Glu Arg Tyr Leu Lys Asp Gln

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<210> 153

<211> 26

<212> PRT

1005305-110201

<213> Artificial Sequence

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<400> 153

Leu Leu Gln Leu Thr Val Trp Gly Ile Lys Gln Leu Gln Ala Arg Ile

1 5 10 15

Leu Ala Val Glu Arg Tyr Leu Lys Asp Gln

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<211> 27

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His Leu Leu Gln Leu Thr Val Trp Gly Ile Lys Gln Leu Gln Ala Arg

1 5 10 15

Ile Leu Ala Val Glu Arg Tyr Leu Lys Asp Gln

20 25

<210> 155

<211> 28

<212> PRT

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Gln His Leu Leu Gln Leu Thr Val Trp Gly Ile Lys Gln Leu Gln Ala

1 5 10 15

Arg Ile Leu Ala Val Glu Arg Tyr Leu Lys Asp Gln

20 25

<210> 156

<211> 29

<212> PRT

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<220>

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<400> 156

Gln Gln His Leu Leu Gln Leu Thr Val Trp Gly Ile Lys Gln Leu Gln

1 5 10 15

Ala Arg Ile Leu Ala Val Glu Arg Tyr Leu Lys Asp Gln

20 25

<210> 157
<211> 30
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<220>
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<400> 157
Ala Gln Gln His Leu Leu Gln Leu Thr Val Trp Gly Ile Lys Gln Leu
1 5 10 15
Gln Ala Arg Ile Leu Ala Val Glu Arg Tyr Leu Lys Asp Gln
20 25 30

<210> 158
<211> 31
<212> PRT
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<220>
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<400> 158
Glu Ala Gln Gln His Leu Leu Gln Leu Thr Val Trp Gly Ile Lys Gln
1 5 10 15
Leu Gln Ala Arg Ile Leu Ala Val Glu Arg Tyr Leu Lys Asp Gln
20 25 30

<210> 159
<211> 32
<212> PRT
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<220>
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<400> 159
Ile Glu Ala Gln Gln His Leu Leu Gln Leu Thr Val Trp Gly Ile Lys
1 5 10 15
Gln Leu Gln Ala Arg Ile Leu Ala Val Glu Arg Tyr Leu Lys Asp Gln
20 25 30

<210> 160
<211> 33
<212> PRT
<213> Artificial Sequence

<220>
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<400> 160

Ala Ile Glu Ala Gln Gln His Leu Leu Gln Leu Thr Val Trp Gly Ile

1 5 10 15
Lys Gln Leu Gln Ala Arg Ile Leu Ala Val Glu Arg Tyr Leu Lys Asp
20 25 30
Gln

<210> 161

<211> 34

<212> PRT

<213> Artificial Sequence

<220>

<223> Artificial Peptide

<400> 161

Arg Ala Ile Glu Ala Gln Gln His Leu Leu Gln Leu Thr Val Trp Gly

1 5 10 15
Ile Lys Gln Leu Gln Ala Arg Ile Leu Ala Val Glu Arg Tyr Leu Lys
20 25 30
Asp Gln

<210> 162

<211> 35

<212> PRT

<213> Artificial Sequence

<220>

<223> Artificial Peptide

<400> 162

Leu Arg Ala Ile Glu Ala Gln Gln His Leu Leu Gln Leu Thr Val Trp

1 5 10 15
Gly Ile Lys Gln Leu Gln Ala Arg Ile Leu Ala Val Glu Arg Tyr Leu
20 25 30
Lys Asp Gln
35

<210> 163

<211> 36

<212> PRT

<213> Artificial Sequence

<220>

<223> Artificial Peptide

<400> 163

Leu-Leu-Arg-Ala-Ile-Glu-Ala-Gln-Gln-His-Leu-Leu-Gln-Leu-Thr-Val

1 5 10 15
Trp Gly Ile Lys Gln Leu Gln Ala Arg Ile Leu Ala Val Glu Arg Tyr

20 25 30
 Leu Lys Asp Gln
 35

<210> 164
 <211> 37
 <212> PRT
 <213> Artificial Sequence
 <220>
 <223> Artificial Peptide

<400> 164
 Asn Leu Leu Arg Ala Ile Glu Ala Gln Gln His Leu Leu Gln Leu Thr
 1 5 10 15
 Val Trp Gly Ile Lys Gln Leu Gln Ala Arg Ile Leu Ala Val Glu Arg
 20 25 30
 Tyr Leu Lys Asp Gln
 35

<210> 165
 <211> 38
 <212> PRT
 <213> Artificial Sequence

<220>
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<400> 165
 Asn Asn Leu Leu Arg Ala Ile Glu Ala Gln Gln His Leu Leu Gln Leu
 1 5 10 15
 Thr Val Trp Gly Ile Lys Gln Leu Gln Ala Arg Ile Leu Ala Val Glu
 20 25 30
 Arg Tyr Leu Lys Asp Gln
 35

<210> 166
 <211> 34
 <212> PRT
 <213> Artificial Sequence

<220>
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<400> 166
 Arg Ala Ile Glu Ala Gln Gln His Leu Leu Gln Leu Thr Val Trp Gly
 1 5 10 15
 Ile Lys Gln Leu Gln Ala Arg Ile Leu Ala Val Glu Arg Tyr Leu Lys
 20 25 30
 Asp Gln

10005005-11004

TODD J. HILL

[illegible]

TODD J. HILL

TODD J. HILL

TODD J. HILL

TODD J. BROWN

TODD J. HILL

TODD J. HILL

TODD J. HILL

<400> 170
 Ala Gln Gln His Leu Leu Gln Leu Thr Val Trp Gly Ile Lys Gln Leu
 1 5 10 15
 Gln Ala Arg Ile Leu Ala Val Glu Arg Tyr Leu Lys Asp Gln
 20 25 30

<210> 171
 <211> 29
 <212> PRT
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<220>
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<400> 171
 Gln Gln His Leu Leu Gln Leu Thr Val Trp Gly Ile Lys Gln Leu Gln
 1 5 10 15
 Ala Arg Ile Leu Ala Val Glu Arg Tyr Leu Lys Asp Gln
 20 25

<210> 172
 <211> 28
 <212> PRT
 <213> Artificial Sequence

<220>
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<400> 172
 Gln His Leu Leu Gln Leu Thr Val Trp Gly Ile Lys Gln Leu Gln Ala
 1 5 10 15
 Arg Ile Leu Ala Val Glu Arg Tyr Leu Lys Asp Gln
 20 25

<210> 173
 <211> 27
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Artificial Peptide

<400> 173
 His Leu Leu Gln Leu Thr Val Trp Gly Ile Lys Gln Leu Gln Ala Arg
 1 5 10 15
 Ile Leu Ala Val Glu Arg Tyr Leu Lys Asp Gln
 20 25

<210> 174
 <211> 26

TOO SHORT TO SEQUENCE

<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Peptide

<400> 174
Leu Leu Gln Leu Thr Val Trp Gly Ile Lys Gln Leu Gln Ala Arg Ile
1 5 10 15
Leu Ala Val Glu Arg Tyr Leu Lys Asp Gln
20 25

<210> 175
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Peptide

<400> 175
Leu Gln Leu Thr Val Trp Gly Ile Lys Gln Leu Gln Ala Arg Ile Leu
1 5 10 15
Ala Val Glu Arg Tyr Leu Lys Asp Gln
20 25

<210> 176
<211> 24
<212> PRT
<213> Artificial Sequence

<220>
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<400> 176
Gln Leu Thr Val Trp Gly Ile Lys Gln Leu Gln Ala Arg Ile Leu Ala
1 5 10 15
Val Glu Arg Tyr Leu Lys Asp Gln
20

<210> 177
<211> 23
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Peptide

<400> 177
Leu Thr Val Trp Gly Ile Lys Gln Leu Gln Ala Arg Ile Leu Ala Val
1 5 10 15
Glu Arg Tyr Leu Lys Asp Gln

<210> 178
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<220>
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<400> 178
 Thr Val Trp Gly Ile Lys Gln Leu Gln Ala Arg Ile Leu Ala Val Glu

1 5 10 15
 Arg Tyr Leu Lys Asp Gln
 20

<210> 179
 <211> 21
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 <213> Artificial Sequence

<220>
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<400> 179
 Val Trp Gly Ile Lys Gln Leu Gln Ala Arg Ile Leu Ala Val Glu Arg

1 5 10 15
 Tyr Leu Lys Asp Gln
 20

<210> 180
 <211> 20
 <212> PRT
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<220>
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<400> 180
 Trp Gly Ile Lys Gln Leu Gln Ala Arg Ile Leu Ala Val Glu Arg Tyr

1 5 10 15
 Leu Lys Asp Gln
 20

<210> 181
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<220>
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<400> 181

Gly Ile Lys Gln Leu Gln Ala Arg Ile Leu Ala Val Glu Arg Tyr Leu

1 5 10 15

Lys Asp Gln

<210> 182

<211> 18

<212> PRT

<213> Artificial Sequence

<220>

<223> Artificial Peptide

<400> 182

Ile Lys Gln Leu Gln Ala Arg Ile Leu Ala Val Glu Arg Tyr Leu Lys

1 5 10 15

Asp Gln

<210> 183

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Artificial Peptide

<400> 183

Lys Gln Leu Gln Ala Arg Ile Leu Ala Val Glu Arg Tyr Leu Lys Asp

1 5 10 15

Gln

<210> 184

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

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<400> 184

Gln Leu Gln Ala Arg Ile Leu Ala Val Glu Arg Tyr Leu Lys Asp Gln

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Leu Ala Val Glu Arg Tyr Leu Lys Asp Gln
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Ala Val Glu Arg Tyr Leu Lys Asp Gln
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Glu Arg Tyr Leu Lys Asp Gln

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Glu Lys Asn Glu Gln Glu Leu Leu Glu Leu Asp Lys Trp Ala Ser Leu
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Trp Asn Trp Phe
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Leu Ile His Ser Leu Ile Glu Glu Ser Gln Asn Gln Gln Glu Lys Asn
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Glu Gln Glu Leu Leu Glu Leu Asp Lys Trp Ala Ser Leu Trp Asn Trp
20 25 30
Phe

<210> 199
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His Ser Leu Ile Glu Glu Ser Gln Asn Gln Gln Glu Lys Asn Glu Gln
1 5 10 15
Glu Leu Leu Glu Leu Asp Lys Trp Ala Ser Leu Trp Asn Trp Phe
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Leu Ile Glu Glu Ser Gln Asn Gln Gln Glu Lys Asn Glu Gln Glu Leu
1 5 10 15
Leu Glu Leu Asp Lys Trp Ala Ser Leu Trp Asn Trp Phe
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Gln Asn Gln Gln Glu Lys Asn Glu Gln Glu Leu Leu Glu Leu Asp Lys

1 5 10 15

Trp Ala Ser Leu Trp Asn Trp Phe

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Asn Asn Leu Leu Arg Ala Ile Glu Ala Gln Gln His Leu Leu Gln Leu

1 5 10 15

Thr Val Trp Gly Ile Lys Gln Leu Gln Ala Arg Ile Leu Ala Val Glu

20 25 30

Arg Tyr Leu Lys Asp Gln

35

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Asn Asn Leu Leu Arg Ala Ile Glu Ala Gln Gln His Leu Leu Gln Leu

1 5 10 15

Thr Val Trp Gly Ile Lys Gln Leu Gln Ala Arg Ile Leu Ala Val Glu

20 25 30

Arg Tyr Leu Lys Asp Gln

35

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